Course Syllabus

CHBE 602

Spring 2022

Physico-chemical hydrodynamics

Schedule: TR 10:50AM-12:05PM lecture

I. Course Objective

To introduce and develop the fundamentals of heat and mass transport, as well as various analytical methods for steady-state and transient diffusion and convective transport. Combined transport with chemical reactions and phase change will also be addressed.

II. Teaching Staff

Instructors:

Prof. Fred MacKintosh, Chemical and Biomolecular Engineering
Office: BRC, room 1000.
Email: fcmack@rice.edu

and

Dr. Tomer Markovich, Center for Theoretical Biological Physics
Office: BRC room 1050L.
Email: tm36@rice.edu

Office Hours: after class on Thursdays and by appointment.

III. Textbook and Resources

The following textbook (available through the campus bookstore and online stores) is required:

Deen, W. M. *Analysis of Transport Phenomena*. Oxford University Press, New York: 1998. 2ndEdition.

IV. Grading

Grading will be determined by a combination of homework assignments (25%), midterm exam (20 %), a final project (25%) and a final exam (30%).

V. Homework

Homework turned in late will be penalized 50%. After solutions are posted, late homework will no longer be accepted.

VI. Exams

TBD